

Cooper Creek Cedar

2023 – 2028 Forest Stewardship Plan

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1.0 Introduction

Cooper Creek Cedar Ltd's (CCC) *Forest Stewardship Plan (FSP, Plan)* has been prepared to fulfill the requirements of the *Forest and Range Practices Act (FRPA)* for Cooper Creek Cedar Ltd – Forest Licenses (FL) A56529 & A30171. The FSP is a landscape level plan that must specify results and strategies that must be consistent to the prescribed extent with the objectives set by Government. The results and strategies state management practices that will conserve and protect forest resources within the company's planned areas of interest in which harvesting and road construction activities will occur. The results and strategies must be measurable or verifiable so they can be evaluated as to whether the specific objectives are being met.

Through FRPA the government has set the following objectives for which results and strategies must be consistent through CCC's forest management and forest operations:

- Soils
- Water
- Wildlife
- Visual Quality
- Timber
- Fish
- Biodiversity
- Cultural Heritage Resources

1.1 Person Preparing the Plan

CCC's Forest Stewardship Plan has been prepared to fulfill the requirements of the Forest and Range Practices Act for Cooper Creek Cedar Ltd. The professional preparing the Plan is the Woodlands Manager for Cooper Creek Cedar Ltd. CCC is the woodlands department for Porcupine Wood Products Ltd, a timber manufacturing mill located approximately 35km south of Nelson, BC.

2.0 The Forest Stewardship Plan

The Forest Stewardship Plan, enacted under FRPA, is the main operational planning tool that CCC submits to government agencies, First Nations and the public for review and comment. The FSP will have a term of five years – 2023 - 2028; commencing from the date of approval by the *Delegated Decision Maker* for the *Minister of Forests (MoF)*.

2.1 Referral Process

As per the *Forest Planning and Practices Regulation (FPPR) Sec 20 – Providing notice, Sec 21 – Review and comment and Sec 22 – Responding to review and comment*, Cooper Creek Cedar Ltd is required:

- to publish notice that the Plan is publicly available for review and comment for a period of 60-days
- make a copy of the Plan available to First Nations, affected stakeholders, the general public (non-affected stakeholders) and government agencies for review
- allow First Nations, affected stakeholders, the general public and government the opportunity to review the Plan & the opportunity to submit written comments in respect of the *Plan* to CCC during the review period
- consider any written comments received that are relevant to the *Plan* and describe any changes that are made to the *Plan* as a result of the comments received

- submit to the *Designated Decision Maker* the “*FSP Submitted For Approval*”. The submission must include:
 - a copy of the published notice
 - a copy of each written comment received
 - a description of any changes made to the *Plan* as a result of the comments received
 - a description of the efforts made to meet with First Nations groups affected by the Plan

The *2023 Forest Stewardship Plan – Referral Summary – Appendix III* has been prepared to meet the *FPPR Sec 20 to Sec 22* requirements. The FSP Referral Summary will only provide a summary of CCC’s *Summary* process. When the FSP is submitted for approval, the *Summary* will include all correspondence between First Nations, Stakeholders, the general public and government agencies and CCC, and will discuss the changes to the original Plan that address the comments.

2.2 Forest Development Units

Forest Development Units (FDUs) are areas indentified in the FSP where forest development may occur during the term of the Plan. CCC’s Primary Forestry Activities (PFAs) – timber harvesting and road construction activities – must be entirely within approved *FDUs*. At the time of this FSP, CCC does not overlap into any other Licensee’s *FDU*.

Cooper Creek Cedar’s FSP & FDU’s exclude all actively within managed area-based tenures including Community Forests, Woodlots, Tree Farm Licenses and Pulpwood Areas.

The FDUs covered in the Plan are:

Forest Development Unit (FDU)	Gross Area (ha)
Argenta / Johnsons Landing	7736
Coffee / Fletcher / Queens	16831
Duncan River	23521
Greyhorse Ridge	15137
Hamill Creek	2187
Healy Creek / Trout Lake	21308
Howser Creek	51279
Laird Creek / Redfish Creek	5104
Lake Creek	11302
Cascade Creek / Poplar Creek	5798
Upper Duncan	35617

CCC has five FDUs in which there are designated *Caribou Government Action Regulation* areas. The following table lists the FDUs and the areas:

Forest Development Unit (FDU)	Caribou Restricted Harvest (ha)	Caribou No Harvest (ha)	Total Caribou GAR Area (ha)
Argenta	0	626	626
Duncan River	1657	16349	18,006
Healy Creek / Trout Lake	887	18908	19,795
Lake Creek	0	7378	7378
Upper Duncan	0	24380	24380

2.2.1 Cutting Permits & Road Permits

Road Permits

RP#	Location	RP#	Location
R01792	Deception	R04824	Omo Creek
R04954	Lendrum – Cedar	R04956	Tea – Spires – Echo – Rory
R06468	Tenise – Howser M/L	R06820	Greyhorse
R06926	Krao – Coffee Creek	R07582	Healy Creek
R07745	Trout Lake	R10057	Duncan-Stevens Creek
R12595	Queens Bay	R12731	Greyhorse North
R13301	Fletcher -Woodbury	R13483	Greyhorse – CP 201-2
R14213	Hamill Creek	R14907	Cascade Creek
R16324	Queens Bay - Coffee	R21925	Laird Creek
R21982	Lake Creek	R22607	Salisbury Creek

Cutting Permits - Active

Timber Mark	Location	Status
FE5 404	Laird Creek / Balfour Face	Active – partially harvested
FE5 405	Salisbury / Bulmer Creek Face	Active – partially harvested
FE5 409	Deception / Laird Creek	Active – harvesting completed
FE5 411	Greyhorse Ridge / Severid Spur	Active – partially harvested
FE5 414	Balfour Face / Deception	Active – harvesting completed
FE5 415	Duncan Lake	Active – no active harvesting
FE5 418	Coffee Creek / Krao Creek	Active – harvesting completed

Cutting Permits - Proposed

Cutting Permit	Location	Status
CP 416	Bulmer / Argenta Creek Face	Not Referred – pending
CP 419	Aylmer Creek / Leake Creek	CP Referred – RP issued - pending
CP 420	Duncan Lake / Howser Creek	Not Referred – pending

2.3 Objectives, Results, Strategies and Practice Requirements

The FSP is a landscape level plan that specifies results and strategies that must be consistent to the prescribed extent with *Objectives set by Government*.

Objectives are descriptions how overall goals aimed at conserving and protecting timber and non-timber resources can be achieved. *FRPA* provides for three types of objectives:

Objectives Set in Regulation: These objectives are explicitly stated in the Forest Planning and Practices Regulation.

Objectives Enabled by Regulation: The Government Actions Regulation (GAR) provides authority to the Minister responsible for the *Forest Act*, the Minister responsible for the *Land Act* and the Minister responsible for the *Wildlife Act* to establish objectives for certain items described in the regulation. These objectives can apply at many different scales.

Land Use Objectives: These are objectives specific to a certain area that have been established through a Landscape Unit Plan or another Higher Level Plan such as the *Kootenay Boundary Higher Level Plan Order (KBHLP)*. Where there is a conflict between *FRPA* Regulations and the *KBHLP*, *KBHLP* will prevail to the extent of the discrepancy.

Kootenay-Boundary Higher Level Plan Order:

The Kootenay-Boundary Higher Level Plan Order establishes Resource Management Zones & Objectives that reflect the required balance of social, economic and environmental values to be considered in the process of forest management. The *Higher-Level Plan* provides legal objectives and strategies that must be applied when carrying out a primary forest activity. The then, *Minister of Sustainable Resource Management* set these objectives. The most recent version of KBHLP, effective October 2002 and the most current variances to October 2016 are an integral part of this document.

Results, Strategies and Practice Requirements state management practices that will conserve and protect forest resources within CCC's planned areas of interest in which Primary Forest Activities (PFA) will occur. The results and strategies must be measurable or verifiable so they can be evaluated as to whether the specific objectives are being met.

Strategies are descriptions of:

- measurable or verifiable steps or practices that will be carried out in order to achieve consistency with a particular established objective and who will carry out the practices
- the situations or circumstances that determine where in a Forest Development Unit the steps or practices will be applied

Results are descriptions of:

- measurable or verifiable outcomes in respect of a particular established objective and who is responsible/accountable for achieving the outcomes
- the situations or circumstances that determine where in a Forest Development Unit the outcomes will be applied

Practice Requirements: *Section 12.1 of FPPR* lists practice requirements that, if applied, are considered to meet the objectives set by government; therefore, a result or strategy is not required for those objectives for which a "default" practice requirement is applied. However, the Plan preparer may propose alternative strategies or results meant to achieve these objectives. When strategies or results are developed that vary from the practice requirements stated in *FPPR Sec 12.1*, those practice requirements will no longer apply to activities under the FSP. In addition to the "default" practice requirements stated in the *FPPR Sec 12.1*, the *FPPR* states other practice requirements that must be followed/applied when undertaking primary forest activities. Because these practices are in regulation and must be followed, they are not stated in the *FSP*.

3.0 Objectives, Results & Strategies

The following section describes the strategies or results Cooper Creek Cedar will follow to ensure that CCC's PFAs carried out under the term of this FSP will be consistent with the applicable legislation and objectives set by government to manage each forest resource.

3.1 Soils

Objective set by Government for Soils (FPPR Sec 5)

The objective set by government for Soils is, without unduly reducing the supply of timber from British Columbia's forests, to conserve the productivity and the hydrologic function of soils.

CCC will follow the practice requirements stated in *Sections 35 and 36 of the FPPR*. The objective set by government for soils is considered to be achieved when CCC applies these practice requirements when carrying out primary forest activities:

Element	Strategy	Location
Soil Disturbance Limits	CCC will comply to comply with the practice requirements stated in Sec 35 of the FPPR.	All FDU's
Permanent Access Structures Limits	CCC will comply with the practice requirements stated in Sec 36 of the FPPR.	All FDU's

3.1.2 Soil Disturbance Targets

Max. Allowable Soil Disturbance (MASD) (%)	Max. Allowable Soil Disturbance (MASD) - Sensitive Soils (%)	Max. Amount TAS May Exceed MASD Prior to Rehab (%)	Max. Allowable Soil Disturbance For Roadside Work Areas (%)	Maximum Permanent Access Structures (%)
10.0	5.0	5.0	25%	7.0
<p>The soil disturbance limits can be exceeded in the following situations:</p> <ul style="list-style-type: none"> removing stumps or salvaging windthrow and the additional soil disturbance achieves the MASD targets stated above where the Temporary Access Structures constructed exceed the above targets: <ul style="list-style-type: none"> before the regeneration date, a sufficient amount of the Standards Unit (SU) is rehabilitated such that CCC is in compliance with the soil disturbance targets stated in subsection 3.1.2 				

3.2 Timber

Objective set by Government for Timber (FPPR Sec 6)

The objectives set by government for Timber are:

- maintain or enhance an economically valuable supply of commercial timber from British Columbia's forests*
- ensure that delivered wood costs, generally after taking into account the effect on them of the relevant provisions of this regulation and of the Act, are competitive in relation to equivalent costs in relation to regulated primary forest activities in other jurisdictions*
- ensure that the provisions of this regulation and of the Act that pertain to primary forest activities do not unduly constrain the ability of a holder of an agreement under the Forest Act to exercise the holder's rights under the agreement*

As per Sec 12(8) of the FPPR, results or strategies are not required for an objective set by government for timber

3.2.1 KBHLP Objectives and Strategies that relate to the Objective set by Government for Timber:

<p>Objective 7: Enhanced Resource Development Zones – Timber Cooper Creek Cedar Ltd will comply with Objective 7 of Kootenay Boundary Higher Level Plan Order.</p> <p>Practice Requirements The green-up height for Enhanced Resource Development Zones (ERDZ-T) is established as successful regeneration, as defined by the DM, of cutblocks provided this is consistent with any landscape unit patch size objectives that are established for any landscape unit that incorporates the ERDZ-T</p>
<p>Objective 10: Social & Economic Stability This objective states that the Government will coordinate the analysis to determine the effect of KBLUP Objectives 1 through 9 on the forest economy; therefore CCC will not conduct the social and economic stability analysis of the impacts Objectives 1 through 9 may have on the communities located within the area of the higher level plan.</p>

Element	Strategy	Location
Planting – Stocking Standards	CCC will incorporate the Government established Stocking Standards included in the FSP Appendix. This will include planting mixed tree species in the appropriate micro-sites to establish mixed stands. The managed plantations will continue to create an enhanced supply of commercial timber.	All FDU's
Partial Cutting Silviculture Prescriptions	Where partial cutting is consistent with managing all other objectives, CCC will prescribe partial cutting silviculture prescriptions in the Site Plans to achieve a mosaic of opening sizes/types with increased tree densities and variability.	All FDU's

3.3 Wildlife

Objectives set by Government for Wildlife (FPPR Sec 7(1))

The objective set by government for wildlife is, without unduly reducing the supply of timber from British Columbia's forests, to conserve sufficient wildlife habitat in terms of amount of area, distribution of areas and attributes of those areas, for

- a) *the survival of species at risk*
- b) *the survival of regionally important wildlife, and*
- c) *the winter survival of specified ungulate species, and*

Specific objectives for wildlife are set by government through *Objectives Set by Government* and by *Government Actions Regulations*:

- a) **Objectives Set by Government:** a result or strategy for wildlife is only required if the Minister responsible for the *Wildlife Act* gives notice of the species for which the objective is being set and the indicators of the amount, distribution and attributes of wildlife habitat to be managed to conserve the particular species' habitat requirements.

Per *FPPR Sec 7(3)*, a person required to prepare a FSP is exempt from the obligation of specifying a result or strategy in relation to the *Objective set by Government for Wildlife in FPPR Sec 7(1)* if the objective is addressed by objectives established in relation to a *Wildlife Habitat Area (WHA)*, *Ungulate Winter Range (UWR)*, *General Wildlife Measure (GWM)* or a *Wildlife Habitat Feature*, or if an order given under *GAR Sec 9 to 13* specifically includes an exemption.

- b) **Government Actions Regulation (GAR):** the Minister responsible for the *Wildlife Act* may by order establish:
 - (i) a *General Wildlife Measure (GWM)* to be applied to a specified area for a category of species at risk, regionally important wildlife or specified ungulate species if believed the measure is necessary to protect or conserve the species, or a *General Wildlife Measure* for a wildlife habitat area or an ungulate winter range if believed the measure is necessary to protect or conserve the wildlife habitat area or ungulate winter range
 - (ii) a *Wildlife Habitat Area (WHA)* if believed that the area is necessary to meet the habitat requirements of a category of species at risk or regionally important wildlife, and an objective for the wildlife habitat area if the wildlife habitat area requires special management
 - (iii) a *Wildlife Habitat Feature (WHF)* for specific wildlife habitat features if believed the wildlife habitat feature requires special management
 - (iv) an area as an *Ungulate Winter Range (UWR)* if believed the area contains habitat that is necessary to meet the winter habitat requirements for a category of specified ungulate species.

3.3.1 Species at Risk (SAR)

Pursuant to *FPPR Sec 7(3)*, the Licensee is exempt from the obligation to prepare results or strategies in relation to the objective set out in *Sec 7(1)* given the established *WHA* which address the amount of area required to meet habitat requirements and specifies the *GWM* to maintain the identified wildlife within those areas. The *Coeur d' Alene Salamander* and *Flammulated Owl* are the exception, where the required amount and distribution of *WHAs* have not been satisfied.

FPPR Sec 7 Notices authorize the establishment of *WHAs* and *GWMs* for a category of species at risk and regionally important wildlife. The *Notices* include indicators of the amount, distribution and attributes for the winter survival of species at risk. *Sec 7 Notices* are tracked through the following website:

<http://www.env.gov.bc.ca/wld/frpa/notices/sar.html#ab>

Species at Risk for which the Licensee will provide special management are, for the most part, limited to vertebrate species designated as Red or Blue by the Ministry of Environment, or as endangered,

threatened or of special concern (listed on *Species at Risk Public Registry, Schedule 1*) by the committee on the Status of Endangered Wildlife in Canada. Schedule 1 can be found at the following website:
https://www.registrelep-sararegistry.gc.ca/species/schedules_e.cfm?id=1

If any animal or plant species at risk or listed plant community is identified anywhere in CCC's operating area, the Licensee will inform the *Conservation Data Center* about the sighting within 30 days from the time at which the species was observed. The Licensee will use the *British Columbia Data Centre: Data Submissions* website to submit the observations of species at risk:

<https://www2.gov.bc.ca/gov/content/environment/plants-animals-ecosystems/conservation-data-centre/submit-data>

CCC will also copy these observations as email attachments to the KNC Forestry Referrals Office chris.joseph@ktunxa.org.

Practice Requirements: Strategy & Results

1. Training for SAR (including Federally listed vertebrate and invertebrate animals, vascular & non-vascular plants and listed plant communities) including FPPR Sec 7(2) species, UWRs and WHAs:

- a) CCC will ensure that their forest development staff and contractors are provided with SAR awareness training by a Qualified Registered Professional (R.P.Bio or QRP qualified to supply SAR training) training annually in the spring season at the commencement of the forest development season. The QRP will review known SAR occurrences in CCC's planned areas for forest development. The *BC CDC species Explorer* website will be referenced to determine the relevant management guidelines and Best Management Practices (BMPs) for confirmed and potential SAR species:

<https://www2.gov.bc.ca/gov/content/environment/plants-animals-ecosystems/conservation-data-centre/explore-cdc-data/species-and-ecosystems-explorer>

Where new information regarding SAR becomes available, the R.P. Bio. will inform forest development staff and contractors of the new information within one month. The annual training will be documented and maintained on file for reference.

Training will include referencing the *Identified Wildlife Management Strategy (IWMS) – Accounts and Measures for Managing Identified Wildlife – Southern Interior Forest Region*. The document will ensure CCC's forest planners are current in knowing the wildlife identified as species at risk, and are up to date with the direction, policy, procedures and guidelines for managing Identified Wildlife. The IWMS is found at:

<https://www.env.gov.bc.ca/wld/frpa/iwms/iwms.html>

The *British Columbia Species and Ecosystem Explorer Tool* will be incorporated into the training and will be utilized to generate information on species and ecological communities including conservation or legal status, and spatial distribution:

<https://www.env.gov.bc.ca/wld/frpa/iwms/iwms.html>

Where new information regarding SAR becomes available, the forest development staff and contractors will be informed/trained of the new information within one year, or prior to the next forest development field season.

The annual training will be documented and maintained on file for reference.

Cutting Permit (CP) and Road Permit (RP) development:

- (i) prior to beginning the field reconnaissance in the CP/RP development, CCC staff and forest development contractors responsible for the CP/RP development will have participated in the SAR training, as described above
 - (ii) a qualified/experienced QRP will conduct assessments for SAR species during the CP development period according to species-specific RISC standards (Resource Information Standards Committee), supplemented by staff and contractors conducting the forest development process to identify SAR that may be in the CP development area.. Orders related to UWRs, WHAs, Whfs and locations of any SAR in the proposed forest development area will be brought to the attention of the development planners and documented in the CP Site Plans.
 - (iii) where SAR or a WHF are identified in the field during the course of regular forestry field development activities, measures necessary to:
 - i. protect a SAR and avoid disturbance or timing of activities (according to most current guidelines and BMP)
 - ii. conserve sufficient wildlife habitat in terms of amount of area, distribution of areas and attributes of those areas for the survival of a SAR, &/or not damage or render ineffective a WHF will be developed and documented in Site Plans (SPs) &/or supporting documents
- b) where SAR is identified in relation to a planned CP, the forest development planner will follow the management recommendations of the QRP to preserve the habitat features required by SAR for survival and reproduction:
- (i) include the area identified as having existing natural SAR habitat values in a timber reserve (WTRA, WTR)
 - (ii) a QRP will assess the area and make recommendations on how to preserve the existing habitat features. The QRP's recommendations will be noted in the SP and implemented in the subsequent PFA
 - (iii) the QRP may recommend access control to manage, protect &/or conserve wildlife habitat values. CCC would make a request to the Designated Decision Maker to install access control in the form of:
 - i. gating the main access road, road deactivation &/or rehabilitation, depending on the future requirement of the specific road, to minimize public access
 - ii. install signage to inform & educate the public of the existing SAR habitat values that require protecting

where a SAR is identified in relation to a planned CP, a QRP will provide management recommendation regarding the appropriateness of CP implementation and timing prior to undertaking any PFA. Prior to beginning industrial operations, the PFA contractor will be provided with the QRP's management prescription, with the SPs &/or supporting documents (as above) regarding the SAR and the measures required to protect and manage for the SAR, its habitat and WHFs

Through a pre-work meeting, SPs and/or supporting documents, the contractors will be advised of:

- (i) the results of any stand level assessment for SAR
- (ii) the measures required to manage for the identified SAR, UWRs &/or WHAs
- (iii) inform the contractor of how some specific harvesting/road construction activities are required to be consistent with the requirements stated in the Wildlife Habitat Area Order
- (iv) if SAR are encountered during PFAs, operations will immediately stop and a QRP will assess the situation and will provide recommendations on how to proceed. Subsequent operations will be consistent with the QRP's recommendations

- c) If any of the species at risk are identified outside the known occurrence sites, the Licensee will notify the *Conservation Data Center* and inform them about the sighting within 30 days from the time at which the species was observed. The Licensee will use the *British Columbia data Centre: Data Submissions* website to submit the observations of species at risk. This website is: <https://www2.gov.bc.ca/gov/content/environment/plants-animals-ecosystems/conservation-data-centre/submit-data>
The observations will be copied via email to the KNC Forestry Referrals Office: chris.joseph@ktunxa.org

3.3.2 Ungulate Winter Range

Location	Wildlife Habitat Area Ungulate Winter Range Order #4-001	Species Affected
All FDU's	CCC will comply with Ungulate Winter Range Order U-4-001 (amended February 2007). CCC will track changes to the designated Ungulate Winter Ranges through the following website: http://www.env.gov.bc.ca/wld/frpa/uwr/approved_uwr.html	Mule deer, White-tailed deer, Rocky Mountain Elk and Moose
CCC utilizes <i>HLPO (Higher Level Plan Order) Reporting Suite</i> to determine the amount of existing tree species & crown closure forests in a Landscape Unit that meet the specific UWR targets in which CCC is planning to develop a cutting permit. (see 3.5.3 KBHLPO – Determining Old & Mature Forest Spatially for additional information on the <i>HLPO Reporting Suite</i>)		

Established Wildlife Habitat Areas Within FSP FDU's:

FDU	WHA Order	Area – Conditional Harvest (ha)
Coffee/Fletcher	4-026	1.9
Howser	4-019	2.7
Howser	4-020	1.7
Howser	4-021	1.8

The *Ungulate Winter Ranges* and *Wildlife Habitat Areas* that have been established by Order of the Deputy Minister of Environment, through GAR, at the time of the FSP development, and are within the area in the FDU's under this FSP, are shown on the maps contained in Appendix II – Forest Development Unit Maps. CCC will comply with the management standards stated in each WHA.

3.4 Fish, Water, Wildlife & Biodiversity

3.4.1 Riparian Areas

Objectives set by Government for Water, Fish, Wildlife and Biodiversity within Riparian Areas (FPPR Sec 8)

The objectives set by government for water, fish, wildlife and biodiversity within riparian area is, without unduly reducing the supply of timber from British Columbia forests, to conserve, at the landscape level, the water quality, fish habitat, wildlife habitat and biodiversity associated with those riparian areas.

CCC will follow the practice requirements stated in Sections 47 to 51 inclusive and 53 of the FPPR. The objective set by government for fish, water, wildlife and biodiversity within riparian areas is considered to be achieved when CCC applies these practice requirements when carrying out primary forest activities:

Element	Result/Strategy	Location
Stream Riparian Class	CCC will comply with the practice requirements stated in Sec 47 of the FPPR.	All FDU's
Wetland Riparian Class	CCC will comply with the practice requirements stated in Sec 48 of the FPPR.	All FDU's
Lake Riparian Classes	CCC will comply with the practice requirements stated in Sec 49 of the FPPR.	All FDU's
Restrictions in a Riparian Management Area	CCC will comply with the practice requirements stated in Sec 50 of the FPPR.	All FDU's
Restrictions in a Riparian Reserve Zone	CCC will comply with the practice requirements stated in Sec 51 of the FPPR.	All FDU's
Temperature Sensitive Streams	At the time this FSP was developed, there were no designated "Temperature Sensitive Streams" in the FDU's within this Plan, therefore the practice requirements of Sec 53 do not apply.	All FDU's

FPPR Sec 52(1) – Retention of Trees in a Riparian Management Zone: When falling trees in a cutblock within a Riparian Management Zone (RMZ), CCC will ensure the percentage of the total basal area within the RMZ will be retained as specified in the following table. The standing trees will be reasonably representative of the physical structure of the RMZ, as it was before harvesting.

Retention of Trees in a Riparian Management Zone:

Riparian Class of Streams	All FDU's	Stream Riparian Class			
		Riparian Class	Riparian Management Area (meters)	Riparian Reserve Zones (meters)	Riparian Management Zone (meters)
		S1-A: >1-km length / flood plain \geq 100-m	100	0	100
		S1-B: stream width \geq 20-m	70	50	20
		S2: stream width \geq 5-m / <20-m	50	30	20
		S3: stream width \geq 1.5-m / <5-m	40	20	20
		S4: stream width <1.5-m	30	0	30
		S-5: stream width >3-m	30	0	30
		S-6: stream width \leq 3-m	20	0	20
		Note: S1, S2, S3 & S4 streams are fish bearing streams or are in a community watershed.			
Retention of trees in a riparian management zone (RMZ).	All FDU's	Minimum Retention Levels within Riparian Areas			
		Riparian Class	Basal Area to be Retained Within RMZ (%)		
		S1A, S1B,S2,S3	\geq 20		
		S4, S5	\geq 10		
		Note: shrub & understory layers will be retained in all RMZ in above Riparian Classes			
		S6	\geq 0 **		
All Classes of Wetlands or Lakes	\geq 10 BA. Additionally, a 5m machine free zone will be maintained				

CCC, when falling trees in a cutblock within a Riparian Management Zone (RMZ) of a class stated in “Column – Riparian Class” CCC will ensure the percentage of the total basal area within the respective RMZ is left as standing trees. Standing trees is defined as any tree that is merchantable. The Basal Area retention targets described in the above table are the *minimum* basal area to be retained.

** S6 Creeks:

- i. where S6 creek are \leq 1-m in width, the target tree retention in the 20-m Riparian Management Area will be \geq 0% basal area retention – to be determined by a QRP (Registered Professional Forester [RPF] or Registered Forest Technician [RFT]), plus all understory stems (Layer 3 & 4 stems & all deciduous stems & shrubs) will be retained to a maximum of 100 stems/ha. In situations where there are <100 understory stems/ha in the RMA, understory stems that are damaged in the harvesting operation are acceptable as those stems continue to provide structure and streambank stability.
- ii. where S6 creeks are > 1-m in width, the target tree retention in the 20-m Riparian Management Area will be \geq 0% basal area retention of dominant/co-dominant trees, to be determined by a QRP. The QRP determining the level of retention will consider the number of dominant/co-dominant stems that are required to provide shade and to contribute large woody debris over time. The QRP’s objective is to retain the level of Layer 1,2,3 &/or 4 trees, deciduous trees & shrubs to maintain the integrity of the S6 creeks – to maintain structure & streambank stability.

Practices: Retention of Trees in a Riparian Management Zone: (trees are retained within the designated RMZ adjacent to the stream/creek)

1. During cutting permit development, a QRP or RFT will conduct riparian assessments to determine the *Stream Riparian Class* of all streams within the cutblock boundaries. Additionally, riparian features adjacent to a proposed block &/or road, that could be impacted by the proposed development, will be surveyed. The tree retention prescription will be determined to meet the target BA retention specific to the determined riparian class, as per the table above. The QRP's/RFT's identified *Riparian Classification* and *BA Retention* for each stream within each cutblock will be specified in the specific block Site Plan.
2. *FPPR Schedule 1 – Factor 2 - Factors relating to Objective set by Government for Water, Fish, Wildlife and Biodiversity in Riparian Areas*, state factors that need to be considered when planning a PFA in a riparian area. At the time of planned forest development, CCC's forest development staff and contractors will consider/implement the “*Factors*” regarding the planned management regime, the type, timing or intensity of the forest activity and/or the role of forest shading affecting stream temperature when operating in riparian areas.
3. Stems within each RMZ may be retained in clumps, patches and/or single tree. The objective of the tree retention design is to retain the sufficient number of stems required to prevent the temperature of the stream from increasing to an extent that would have a material adverse impact on fish and other aquatic life, and to maintain and protect the stream channel integrity (maintain stream channel function, integrity, structure, stability, temperature, shade and habitat for fish and aquatic biota.).
4. To maintain stream bank integrity & channel integrity, five-meter (5-m) machine free zones will be established on both sides of each creek, with the exemption of designated crossings, prior to harvesting. Deep rooted shrubs and brush will be retained within the 5-m zone to assist with stream stability & shading. Logging slash accumulations which potentially could impact the natural stream flow will be removed prior to the next freshet. Large woody debris already in the channel will not be removed. Designated crossings will be constructed so that waste & overburden are deposited outside the 5-m zone. Trees to be harvested within the RMZ will be felled & yarded away from the stream where practicable. The designated crossings will be fully rehabilitated concurrently with completion of the harvesting operation.
5. On a site specific criteria a QRP or RFT will determine the level of retention in the RMZ after assessing the stems within the RMZ for wind firmness, contribution to wildlife & fish habitat/values, insect infestation, visuals, streambank stability (including soil stability & erosion potential), maintaining water quality, potential coarse woody debris contribution to the stream and operational & safety constraints/concerns.
6. If situations arise where the tree retention specified in the above table cannot be retained (ie forest health, blowdown potential, safety concerns), a QRP/RFT will provide a rationale for not meeting the target tree retention and will provide optional management recommendations at the forest development phase prior to harvesting. The rationale will be documented in the block specific Site Plan.

3.4.2 Fisheries Sensitive Watersheds

Objectives set by Government for Fish Habitat in Fisheries Sensitive Watersheds (FPPR 8.1)

The objective set by government for fish habitat in fisheries sensitive watersheds is, without unduly reducing the supply of timber in British Columbia’s forests, to prevent the cumulative hydrological effects of primary forest activities in the fisheries sensitive watershed from resulting in a material adverse impact on the habitat of the fish species for which the fisheries sensitive watershed was established.

At the time this FSP was developed, there were no designated “Fisheries Sensitive Watersheds” in CCC’s FDUs, therefore the requirement to create a Result/Strategy for this objective does not apply.

3.4.3 Community Watersheds

Objectives set by Government for Water in Community Watersheds (FPPR 8.2)

- 8.2 (2) *The objective set by government for water being diverted for human consumption through a licensed waterworks in a community watershed is to prevent to the extent described in subsection (3) the cumulative hydrological effects of primary forest activities within the community watershed from resulting in*
- a) *a material adverse impact on the quantity of water or the timing of the flow of the water to the waterworks, or*
 - b) *the water from the waterworks having a material adverse impact on human health that cannot be addressed by water treatment required under*
 - (i) *an enactment, or*
 - (ii) *the licence pertaining to the waterworks*
- 8.2 (3) *The objective set by government under subsection (2) applies only to the extent that it does not unduly reduce the supply of timber from the British Columbia’s forests.*

CCC will follow the practice requirements stated in Sections 59 to 63 inclusive of the FPPR. The objective set by government for water in Community Watersheds is considered to be achieved when CCC applies these practice requirements when carrying out primary forest activities:

Element	Result/Strategy	Location
Protecting Water Quality	CCC will comply with the practice requirements stated in Sec 59 of the FPPR: <i>(the primary forest activity does not cause material that is harmful to human health to be deposited in, or transported to, water that is diverted for human consumption by a licensed waterworks)</i>	FDUs in community watersheds
Licensed Waterworks	CCC will comply with the practice requirements stated in Sec 60 of the FPPR: <i>(ensure the primary forest activity does not damage a licensed waterworks)</i> <i>(CCC will not harvest timber or construct a road in a community watershed if the timber harvesting or road construction is within a 100 m radius upslope of a licensed waterworks where the water is diverted for human consumption, unless the timber harvesting or road construction will not increase sediment delivery to the intake)</i>	FDUs in community watersheds

Excavated or Bladed Trails	CCC will comply with the practice requirements stated in Sec 61 of the FPPR: <i>(in the construction of excavated or bladed trails, the logging contractor must ensure that doing so does not cause sediment that is harmful to human health to enter a stream, wetland or lake from which water is being diverted for human consumption by a licensed waterworks)</i>	FDUs in community watersheds
Roads in a Community Watershed	CCC will comply with the practice requirements stated in Sec 62 of the FPPR: <i>(where a spring is identified in a community watershed, roads must not be located closer than a 100 m radius upslope of the spring identified under subsection(1)(a) unless the construction does not interfere with the subsurface flow path of a drainage area that contributes to the spring)</i>	FDUs in community watersheds
Use of Fertilizers	CCC will comply with the practice requirements stated in Sec 63 of the FPPR. <i>(if CCC applies fertilizer in a Community Watershed, the fertilizer will not be applied closer than a 100-m radius upslope of a licensed waterworks, or within 10-m of a perennial stream that is observable from an aircraft to apply the fertilizer.</i> <i>if the application of the fertilizer results in:</i> <ul style="list-style-type: none"> • <i>Nitrate nitrogen levels in the stream exceeding 10 parts/million if measured immediately below the area where the fertilizer is applied, or</i> • <i>Chlorophyll levels in the stream exceeding:</i> <ul style="list-style-type: none"> • <i>2 micrograms/litre in a lake into which the stream drains, or</i> • <i>50 milligrams/square meter in the stream</i> 	FDUs in community watersheds

Protecting Water Quality/Quantity in a Community Watershed:

Practices: to be applied to streams during Forest Development that are in a Community Watershed

1. CCC will have a Qualified Registered Professional conduct a Hydrologic/Watershed Assessment (Hydrogeomorphic Assessment) of the hydrologic and geomorphic conditions of the watershed basin at the initial stages of planned forest development of a Cutting Permit. The assessment will evaluate cumulative development impacts on hydrologic and geomorphic processes and include qualitative risk based on the latest standards of practice, including explicit consideration of accelerating climate change impacts. The Hydrogeomorphic Assessment will be consistent with EGBC-ABC FP Watershed Assessment Guidelines

The Hydrogeomorphic Assessment, completed by a QRP, is a professional level analysis of existing and proposed forestry and other resource development related effects on water and water related resources conducted at the site or watershed level which will include one or more of the following:

- i. a risk analysis of the potential impacts of the planned cutblock and road development on the water quality, water quantity and timing of the water flow - hydrologic and geomorphic risks of proposed development
- ii. provide recommendations to CCC's proposed development plan to ensure development will not contribute to negative impacts to dwellings and/or private land on fans that are at the confluence of the watershed – hydrologic and geomorphic risks of

- the proposed development
- iii. the final assessment will include the planned development (cutblocks & roads)
- iv. evaluate the cumulative effects caused by past and proposed development within the watershed basin
 - v. of the water flow - hydrologic and geomorphic risks of proposed development
 - vi. specific recommendations or establish thresholds for hazard mitigation
 - vii. drainage plans for roads
 - viii. climate change is now considered in hydrologic assessments to the extent of impact on extreme weather events affecting peak & low flows (ie bridge/culvert sizing)
- 2. CCC will have a QRP evaluate the risk of activities that may result in:
 - i. material that is known to be harmful to human health to be deposited in, or transported to water diverted for human consumption by a licensed waterworks
 - ii. an increase in sediment delivery causing sediment that is harmful to human health to enter a stream, lake or wetland, and subsequently into an intake from which the water is being diverted for human consumption.
 - iii. negative impacts to dwellings and private land on fans that are at the confluence of the watershed
- 3. CCC will accept the QRP's recommendations derived from the hydrogeomorphic assessment and will ensure the QRP's recommendations are incorporated into the design of the Cutting Permit, including the road design. The objective of the QRP's assessment is to meet the *Government Objective* for protecting water quality in a Community Watershed.
- 4. CCC will encourage the residents within the Community Watershed affected by the planned forest development to form a local community planning group &/or a formal information sharing framework (ie website, email communication) to liaise with CCC during all phases of the forest development. CCC will encourage the formation of the working group or information sharing forum in the early process of CCC beginning Cutting Permit &/or Road Permit development. (Note: CCC will encourage the community to engage with CCC, but cannot force the community to become engaged or form an information framework). CCC will:
 - i. use the information sharing structure as the forum to inform the local community of the results of the hydrogeomorphic assessment, the assessment's recommendations and how the recommendations will guide the proposed development
 - ii. once CCC has determined realistic preliminary road & cutblock design/locations, CCC will provide the local community with detailed CP maps showing the proposed road and cutblock design & other pertinent information, and the planned development will be posted on CCC's website. CCC's intent is to share detailed information about the proposed forest development with the local community and to engage the community in discussions and sharing of information about specific forest development proposals the groups feel may impact the quality/quantity of their local water supply and/or private land. The concerned stakeholders will be given a minimum of 60 days to respond to CCC's submission of the planned cutting permit development.
 - iii. within 15 days of receiving comments, CCC will respond to the comments
 - iv. CCC will notify the Watershed Group of any planned Primary Forest Activity a minimum of 48 hours prior to commencement of any PFA works.
 - v. CCC will refer the final Hydrogeomorphic Assessment to interested First Nations (FN). FN will be given a minimum of 60 days to review and make comment on the Hydrogeomorphic Assessment. (Note: see **Section 3.7 Cultural Heritage Resources** to see CCC's process to determine *interested* FN)

The following are the designated community watersheds covered by this FSP at the time of the FSP submission:

FDU	Community Watershed Name	Water Source	Total Area (ha)	Trim Map	Date Designated
Coffee / Fletcher / Queens	Fletcher Creek	Fletcher Creek	824	82F085 / 82F086	1995-06-15
Coffee / Fletcher / Queens	Hansen Brook	Hansen Brook (Munn Creek)	24	82F076	1995-06-15

3.4.4 Consumptive Use Streams

KBHLP – Objective 6 provides streamside management provisions for S5 and S6 streams that, when applied, reduce the impacts of forest development on streams licensed for human consumption.

Objective 6. Consumptive Use Streams: To reduce the impacts of forest development on streams *licensed* for human consumption, CCC will apply the stream side management provisions listed in KBHLP – Objective 6 to S5 & S6 streams that meet the stated conditions:

- **Streamside Management Provisions:**
 - *stream side management zone* will extend from the edge of the stream channel bank or the outer edge of the active floodplain, to a minimum distance of 30 meters on each side of the stream, or to the top of the inner gorge, whichever is greater
 - a stream on which there is water intake/Point of Diversion (POD) which is *licensed for human consumption* and
 - a stream on which the location of the POD is shown on KBHLPO – Map 6.1 – Kootenay Lake (Intakes shown are licensed for human consumption). CCC refines the search for Consumptive Use *Streams* that may be impacted by CP development by referring to *Water Right Licenses - BC Geographic Warehouse*:
 - https://catalogue.data.gov.bc.ca/api/ofi/other/WHSE_WATER_MANAGEMENT.WLS_WATER_
 - <https://catalogue.data.gov.bc.ca/dataset/licensed-springs>
 - <https://catalogue.data.gov.bc.ca/dataset/drinking-water-sources-surface-water-pods>
 - the data in the *BC Geographic Warehouse* is supplied by the water user applying for the *legal* water license.
 - *stream side management zone* includes the segment of stream between the water intake (POD) which is *licensed* for human consumption and the upstream point where stream order is reduced. If POD is located on a first-order stream, the entire stream length above the POD is managed
 - the provisions do not apply where it has been established that a licensed intake is not being utilized for human consumption.

Element	Result/Strategy	Location
Protecting Water Quality	CCC will comply with the practice requirements stated in Sec 59 of the FPPR: <i>(ensure that a primary forest activity does not cause material that is harmful to human health to be deposited in, or transported to, water that is diverted for human consumption by a licensed waterworks)</i>	All FDU's
Licensed Waterworks	CCC will comply with the practice requirements stated in Sec 60 of the FPPR: <i>(ensure a primary forest activity does not damage a licensed waterworks)</i>	All FDU's

CCC will apply the following forest practices when carrying out a primary forest activity in the management zone of a S5 or S6 stream that is determined to be on a stream that is licensed for human consumption (consumptive use stream):

Practice:

1. CCC will reference *Water Right Licenses - BC Geographic Warehouse*:
https://catalogue.data.gov.bc.ca/api/ofi/other/WHSE_WATER_MANAGEMENT.WLS_WATER_
 - <https://catalogue.data.gov.bc.ca/dataset/licensed-springs>
 - <https://catalogue.data.gov.bc.ca/dataset/drinking-water-sources-surface-water-pods>

to identify locations of licensed PODs that are located on streams that are within a proposed Cutting Permit development, including proposed road locations. The data in the *BC Geographic Warehouse* is supplied by the water user when applying for a **legal** water license.

 - i. CCC will notify the Licensed Water Users a minimum of 60 days prior to submission of a CP or RP. The notification will include the legal description of the licensed POD and a map showing the legal location of the Point of Diversion. Where a water user determines there is a discrepancy between the legal POD/water intake which is licensed for human consumption, as per the *BC Geographic Warehouse*, it is the water user's responsibility to notify CCC of the mapping discrepancy and provide CCC with a legal description/GPS location of the actual POD/water intake.
2. The *streamside management zone* will be as stated in KBHLP – Objective 6(1)(a)(i).
3. CCC will comply with the practice requirements stated in Sec 50 – Restrictions in a Riparian Mgmt Zone of the FPPR.
4. For each S5 and S6 stream where the *streamside management zone* applies, CCC will plan and implement primary forest activities only if, in the opinion of a QRP, implementing the plan:
 - i. will not cause material that is harmful to human health to be deposited in, or transported to, water that is diverted for human consumption by a licensed waterworks, and
 - ii. will not damage a licensed waterworks
 - iii. will not result in locating a stream crossing within 50-m (slope distance) upslope of known intakes, unless there is no other practicable option
5. When falling or modifying trees around a consumptive use S5 or S6 stream, a sufficient number of trees will be retained within the *streamside management zone* to maintain stream and stream bank integrity. The required level of tree retention will be determined by a QRP when planning and designing a PFA. The **minimum** basal area retention within the *streamside management zone* will be $\geq 10\%$ and will include all understory, as determined by a QRP while assessing the stems within *streamside management zone* for wind firmness, contribution to wildlife & fish habitat/values, insect infestation, visuals, streambank stability (including soil stability & erosion potential), potential coarse woody debris contribution to the stream and operational & safety constraints/concerns. The *streamside management practices* will be documented in SPs.

6. Where a road is constructed within a *streamside management zone*, CCC will grass seed the cut banks and fill slopes within one growing season following disturbance. (See the grass seeding measure described in Section 4.1 – Invasive Plants, in this document, for details)

3.5 Wildlife & Biodiversity

3.5.1 Landscape Level

Objectives set by Government for Wildlife and Biodiversity – Landscape Level (FPPR Sec 9)

The objectives set by government for wildlife and biodiversity at the landscape level is, without unduly reducing the supply of timber from British Columbia’s forests and to the extent practicable, to design areas on which timber harvesting is to be carried out that resemble, both spatially and temporally, the patterns of natural disturbance that occur within the landscape.

CCC will follow the practice requirements stated in Sections 64 and 65 of the FPPR and Objective 4 of KBHLP. The objective set by government for wildlife and biodiversity at the landscape level is considered to be achieved when CCC applies these practice requirements when carrying out primary forest activities:

Element	Result/Strategy	Location
Maximum Cutblock Size	CCC will comply with the practice requirements stated in Sec 64 of the FPPR: <i>(maximum cutblock size is 40 hectares (unless basal area retention in the cutblock exceeds 40% &/or some other habitat enhancement or restoration treatment is planned). Multiple 40-ha cutblocks adjacent to one another will not be considered until green-up has been achieved)</i> <ul style="list-style-type: none"> a patch size analysis will be completed to determine if the cutblock(s) exceeds 40-ha a written rationale will be provided for cut blocks larger than 40ha – the rationale will be documented in the block SP 	All FDU's
Harvesting Adjacent to Another Cutblock	CCC will comply with the practice requirements stated in KBHLP Objective 4 & FPPR Sec 65: <i>(at least 75% of the net area to be reforested of the adjacent (existing) cutblock is stocked such that the average height of the tallest 10% of the trees on the area is a minimum of 2.5 m and the area is adequately stocked, and 3.0 meters for areas not adequately stocked)</i>	All FDU's

Harvesting Adjacent to Another Cutblock in Visually Sensitive Areas and Community Watersheds	CCC will comply with the practice requirements stated in Sec 65 of the FPPR & KBHLP Objective 4: (where 75% of the net area to be reforested of the existing block is stocked, establish the green-up height of that area to be 3.0 meters in community watersheds and visually sensitive areas)	The strategy will apply to FDU's that are developed in visually sensitive areas and community watersheds.
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3.5.2 Stand Level

Objectives set by Government for Wildlife and Biodiversity – Stand Level (FPPR Sec 9.1)

The objectives set by government for wildlife and biodiversity at the stand level is, without unduly reducing the supply of timber from British Columbia's forests, to retain wildlife trees.

CCC will follow the practice requirements stated in Sections 66 and 67 of the FPPR. The objective set by government for wildlife and biodiversity at the stand level is considered to be achieved when CCC applies these practice requirements when carrying out primary forest activities:

Element	Result/Strategy	Location
Wildlife Tree Retention	CCC will comply with the practice requirements stated in Sec 66 of the FPPR:	All FDU's
Restriction on Harvesting	CCC will comply with the practice requirements stated in Sec 67 of the FPPR.	All FDU's

Wildlife Tree Retention (FPPR – Sec 66):

Practices:

Wildlife Tree Retention Quality:

- i. retain patches that contain the same forest attributes as those present in the cutblock
- ii. focus retention in areas with high-value wildlife trees (larger trees, range of species/decay classes as present in the cutblock)
- iii. larger patches that provide interior forest habitat are preferred. However; the retention targets may also be met by retaining single trees dispersed throughout the block as *dispersed wildlife tree retention*.
- iv. Wildlife trees are, by definition, dead, dying, decaying, diseased, and/or damaged trees. Dead trees with insects, diseases and decay add to the wildlife tree patch value; therefore salvage entries into a WTRA will only occur where blowdown/infected trees rendered the plantation and/or the adjacent forest susceptible to a forest health concern.
- v. WTRAs can also be designed as a tool to manage for Visual Quality Objectives and to isolate inoperable patches within the cutblock

Wildlife Tree Retention Targets:

- i. Cutblocks harvested in a 12 month period, starting April 1: ensure that, at the end of the 12 month period, the total area covered by wildlife tree retention areas that relate to the cutblocks harvested is a minimum of 10% of the total area of the cutblocks
- ii. Individual Cutblock: ensure that, at the completion of harvesting, the total amount of wildlife tree retention areas that relates to the cutblock is a minimum of 3.5% of the cutblock. Additionally, CCC will retain ≥ 5 wildlife trees/ha measuring ≥ 30 -cm dbh, where practicable. CCC will not leave individual wildlife trees in cable harvesting areas due to worker safety concerns.

- iii. the retention targets may be met by retaining wildlife trees in groups (WTRA) and/or as single trees dispersed throughout the block as dispersed wildlife tree retention. Single tree dispersed retention area is calculated by measuring the retained Basal Area (BA) post-harvest (via prism sweeps). The retained BA must be $\geq 3.5\%$ of the total cutblock BA (as per the cruise compilation). The single block dispersed area is then calculated to meet the 10% WTRA over the CP.
- iv. The amount of wildlife tree retention in a cutting permit – individual blocks and the entire permit – is stated in the block Site Plans and tracked via RESULTS submissions.

Restriction on Harvesting in a Wildlife Tree Retention Area (WTRA) (FPPR – Sec 67):

Practice:

CCC will not plan a PFA within a WTRA or a Wildlife Tree Patch (WTP), except:

- i. where the trees on the Net Area to be Reforested of the cutblock to which the WTRA or WTP relates have developed attributes consistent with a mature seral condition, or
- ii. where the trees on the NAR of the cutblock to which the WTRA /WTP relates have ceased to support mature and old forest attributes of value to wildlife three-dependent species
- iii. for a minor incursion (ie. constructing a skid trail or a minor road section where there is no other practicable location for the skid trail or the road section). Proposed incursions into WTRAs will be reviewed by a QRP, and a rationale for the incursion will be provided. Where a minor incursion is proposed, CCC will:
 - o ensure the incursion area does not negatively impact the integrity of the original WTRA or WTP, or negatively impact the resource the original reserve was designed to protect
 - o replace the area of the WTRA or WTP that is impacted by the incursion with an area of at least the same size as the incursion area, preferably adjacent to the original reserve area
 - o the replacement area will contain the same forest attributes as the incursion area
 - o the incursion area and the replacement area will be documented and mapped on the block Site Plan
 - o Fire Risk Reduction: A Primary Forest Activity can be carried out within a developed WTRA &/or WTP to complete a *Fire Management Plan/Wildfire Risk Reduction Plan*. The PFA will be consistent with the *Fire Management Plan* prescription.

3.5.3 KBHLP

Objectives and Strategies that affect the Objectives set by Government for Biodiversity:

There are six *KBHLP Objectives* that contribute to managing for biodiversity that are applicable to the *Objectives set by Government for Biodiversity* covered in this FSP.

Objective 1. Biodiversity Emphasis: To contribute to the conservation of biodiversity. Kootenay Lake Forest District legally established Landscape Unit boundaries throughout the TSA and assigned Biodiversity Emphasis Options (BEO) within each landscape unit. CCC will undertake to comply with the Biodiversity Emphasis objective by managing to KLFD’s assigned BEO’s within each LU.

Objective 2. Old & Mature Forests: To contribute to the conservation of biodiversity, CCC will maintain mature forests in those areas identified in KBHLP Objective 2 (2) and old forests to the level indicated in KBLHP Tables 2.1 through 2.4 to all landscape units and associated biodiversity emphasis as defined in objective 1.

Mature and old forests are defined in KBHLP Table 2.6.

Determining Old & Mature Forest Spatially:

CCC will utilize the *HLPO (Higher Level Plan Order) Reporting Suite* to analyze the amount of Old & Mature Forest in a Landscape Unit in which CCC is planning to develop a cutting permit. The *HLPO Reporting Suite* is an application maintained by the *Selkirk Geospatial Research Centre* that allows members (Licensees) to produce reports reflecting the rules and objectives in the KBHLP for Old Forest and Old+Mature Forest requirements.

The *Suite* is made up of data tables based on crown forest land base and timber harvesting land base logic aggregated into units. Users query the existing condition of landscape unit/BEC/NDT type to determine area contributing to objectives in surplus or deficit. Users also upload spatial updates of planned development to produce “post-harvest” tables showing seral-stage distribution. These “updated tables” are for information purposes, other users don't see a particular licensee plans.

The database is updated annually with all of BCTS Cengea, RESULTS, and FTA logged or proposed openings and all TFL Licensee logged or proposed openings. Data tables show "current state" based on these updates reflecting annual changes in shared landscape units.

The *Suite* and logic is also used for UWR analysis to meet requirements in the UWR GAR Order.

Old Forest Requirement Strategy: For all FDUs in this FSP, the requirement for Old Forest, as per KBLHP – Objective 2, are considered to be met through spatially, non-legal Old Growth Management Areas (OGMA’s), regardless if the OGMA is in deficit of Old Forest. OGMA’s were established to provide representative examples of Old Forest values, and to support the conservation of other important values (ie wildlife habitat, connectivity, recreation, rare ecosystems).

When planning timber development in a shared landscape unit where Mature plus Old Forest is to be managed, and prior to applying for a cutting permit or road permit, the CCC will share information with other Forest Licence holders in the landscape unit to ensure that the development does not cause Mature plus Old Forest targets to not be met. If a recruitment strategy is developed for either Old Forest or Mature plus Old Forest, and the strategy pertains to a shared landscape unit, CCC will share the recruitment strategy with other Forest Licence holders in that landscape unit. The information will include a written rationale accompanied with a map spatially representing the forest stands involved.

- i. LU containing surplus of Old: harvesting allowed, but cannot harvest if harvesting would result in an Old deficit in the LU
- ii. OGMA = Old Forest: CCC adopts the entire area of crown forest land base contained within an OGMA as *Old Forest*, irrespective of actual stand age
- iii. Moratorium on All Old Growth Forest Logging: The *Old Growth (OG) Panel Review* (Gorley and Merkel 2020) and the *Old Growth Technical Advisory Panel* (2020), Price et al. (2020, 2021) have developed an *Old Growth Deferral Strategy* (2021). Old Growth Deferral Polygons have been developed throughout CCC’s FDUs. For Cutting Permits approved after December 2021, CCC will comply with the implemented moratorium on all Old Forest logging until Government determines a strategy to manage Old Growth that will consider the Old Growth Review Panel recommendations.

For KBLHP - Objective 2 – Old & Mature Forests, CCC will comply with Objective 2 and the following additional strategies are specified:

1. With respect to Old Forest requirements within identified OGMA's, CCC will not infringe into an established OGMA except:
 - a. for establishment of tail holds or guy line tiebacks
 - b. to address danger trees that are considered to be a safety hazard to individuals carrying out Primary Forest Activities adjacent to the OGMA. The following features/tree conditions are assessed to determine if a danger tree poses a safety hazard:
 - i. its location or lean
 - ii. its physical damage
 - iii. overhead conditions
 - iv. deterioration of limbs, stem or root system
 - c. to remove damaged timber where an OGMA is rendered ineffective by natural damaging agents including wind, fire or forest health factors. “*Rendered ineffective*” means, in the

opinion of a QRP/RFT, timber is damaged to a degree that the OGMA no longer has the biological value of mature or old forest considering the factors identified in the footnote “k” of *KBHLP Objective 2(5)*. Note: *Danger Trees*, by definition, are generally dead, dying, decaying, diseased, &/or damaged trees that commonly pose a safety hazard. However, dead trees with insects, diseases and decay within an OGMA add to the biodiversity and wildlife value of the OGMA; therefore, the value of the danger tree(s) to the integrity/biodiversity value to the OGMA must be considered in relation to the safety hazard &/or the forest health concern of leaving the danger tree(s) prior to salvaging the danger tree(s).

- d. where there is no other practicable location to construct a road, or where another location would result in greater risk to one or more FRPA Values
- e. where a QRP can identify one or more replacement OGMA’s that provide equal or greater biological value.

Where timber is harvested from an OGMA (for reasons as per above), a RPF will provide a written rationale that will be documented in a Site Plan or Supporting Document. The rationale will indicate the reasons for harvesting timber from an OGMA and will spatially identify one or more replacement OGMA areas. The recruitment strategy will ensure the replacement of the area in the OGMA that has been harvested will be replaced with an area of at least the same size and the replacement area will provide equal or greater biological value of the area removed and will be consistent with the requirements of *Objective 2(5) of KBHLP*, including the factors identified in footnote “k”. Changes to the boundary or locations of OGMA will be mapped and the OGMA boundaries will be updated and tracked in CCC’s GIS department and, upon request, the digital information will be provided to other Forest Licensees if the change is within a shared Landscape Unit. Additionally, CCC will provide updates of additions &/or deletions to spatialized OGMA’s annually through the following website or upon request:

WHSE_LAND_USE_PLANNING.RMP_OGMA_NON_LEGAL_CURRENT_SVW

- 2. With respect to the old and mature-plus-old forest cover requirements, where required targets are not met, as determined by spatial or aspatial analyses, CCC will construct a road or enter into an agreement that authorizes timber harvesting or road construction only where a RPF prepares a rationale that identifies a recruitment strategy to achieve the targets consistent with the requirements of *KBLHP – Objective 2(5)*, including the factors identified in footnote “k”. The recruitment strategy for replacing old and mature-plus-old forest cover requirements will include a rationale that states the rationale for harvesting timber in an area that does not meet the old and mature-plus-old forest cover requirements, and will spatially identify one or more replacement areas of at least the same size that provide equal or greater biological values to meet the removed old and mature-plus-old forest cover attributes.

Footnote “k”: Where a registered professional forester determines that a forest stand has sufficient biological value to be a mature or old considering the stand age, successional status, presence of old growth attributes, size of stand (ha), the amount of human impact, dispersion/connectivity of the stand and rarity of the stand; that stand may be used in meeting the targets as opposed to solely using age.

Objective 3. Caribou: The objective for Caribou, as per KBLHP – Objective 3 was cancelled by the Ministerial (variance) Order 09, January 2009; therefore this objective is not in effect. Objective 3 has been replaced by *GAR Order #U-14-012 – Mountain Caribou – Southwest Kootenay Planning Unit*. CCC will undertake to comply with *GAR Order #U-14-012 – Mountain Caribou – Southwest Kootenay Planning Unit*.

Practice:

- comply with GAR Orders & UWR Guidelines, while avoiding harvest of OG TAP polygons and minimizing harvest of recruitment forest in federal caribou GAR Order recovery habitat areas
- CCC will deactivate & rehabilitate roads as soon as feasible once Silviculture obligations are completed, and determined the roads will no longer be used for future cutting permit development

Objective 4. Green-up: CCC will undertake to comply with the practice rules stated in KBHLP – Objective 4 (and FPPR Sec 65):

Practice:

CCC will not harvest timber on a new cutblock unless at least 75% of the net areas to be reforested of the adjacent cutblocks are stocked such that the average height of the tallest 10% of the trees on the area is a minimum of 2.5 m and the area is adequately stocked, and 3.0 meters for areas not adequately stocked.

Objective 5. Grizzly Bear Habitat & Connectivity Corridors:

The licence holder will comply with Objective 5 of Kootenay Boundary Higher Level Plan Order. Where applicable, mature forest targets must be used to address this objective if connectivity corridors and/or grizzly bear habitat have been identified. In addition, old forest targets should be used to address this objective unless other conservation values such as protection of rare or under represented old growth forests would be adversely affected. Protected areas must first be used to reduce the mature or old forest targets where available within the biogeoclimatic unit

Practices:

- focus inventory and management attention within mapped and known high-value berry habitat. Manage to sustain &/or enhance berry production and follow-up with effectiveness monitoring
- comply with GAR & GWM intended to protect valuable Grizzly Bear habitat
- improve habitat protection in known/established Grizzly Bear connectivity corridors. The KNC & Government are developing Grizzly Bear connectivity corridor mapping – CCC will manage to the mapping once it is completed and adopted.

Objective 8. Fire-maintained Ecosystems: There are no NDT4 Ecosystems in the FDU's under this FSP; therefore the Fire-maintained Ecosystem objective (KBHLP – Objective 8) is not applicable.

3.6 Objectives set by Government for Visual Quality (FPPR 9.2)

The objective set by government in relation to the revised scenic areas and VQO's (Visual Quality Objectives) for the Kootenay Lake TSA that were established March 7, 2014

3.6.1 VQO's Established On March 7, 2014

Visual Quality Objectives (VQO's) and the scenic areas for the Kootenay Lake TSA were revised and established in the District Manager – Selkirk Forest District March 7, 2014 letter (and are subsequently continued under FRPA-Sec 180 & 181 & GAR-Sec 17) that provide VQO guidelines designed to meet the designated Scenic Area objectives for altered landscapes through:

- the March 7, 2014 District Manager - Selkirk Forest District letter identified *known Scenic Areas*, in the Kootenay Lake TSA

- **KBHLP – Objective 9 – Visuals:** to conserve the quality of views from communities, major waterways and major highways by establishing areas identified as *known scenic areas*
- the Kootenay Lake Forest District VQO's are consistent with the scenic areas identified in the KBHLP

Visual Quality Objectives: Result/Strategy – to be applied in all FDUs with VQOs:

Result: The holder of the FSP will meet the visual quality objectives (VQOs) after harvesting and road construction has been completed in the Kootenay Lake FDUs. The VQOs are established by GAR Section 7 notices March 7, 2014 for the Kootenay Lake FDUs

Practice: the following practices will be undertaken by CCC when developing a CP &/or RP (and prior to submitting a CP or RP for approval) to achieve the VQO established for that area:

A *Visual Impact Assessment (VIA)* will be carried out by CCC at the planning stage of forest development (Cutting Permit/Road Permit) in an area designated as a *Known Scenic Area*. The VIA will:

- i. review the visual landscape from significant public viewpoints:

From the VIA Assessment Guidebook:

 - (i) Visual impact assessments estimate, in perspective view, the potential visual effect of proposed operations on the scenic landscape. These assessments are used to confirm whether visual quality objectives for these sites will be achieved.
 - (ii) determine *Significant Public Viewpoints* that provide the most visible view of the proposed development. The *Viewpoints* are generally highway rest areas, recreation sites, active waterways and communities. The views from the *Viewpoints* are transferred onto a map and the proposed development (cutblocks & roads) are superimposed onto the views to develop the *Visual Impact Assessment (VIA)*. The *VIA* is completed using the viewpoint(s) that provide the best view of the land-form or unit on which the proposed operation is to occur.
These viewpoints may or may not correspond to those shown on the visual landscape inventory map.
 - (iii) *Significant Public Viewpoint* means the viewpoint that is a place or location on the water or land that is accessible to the public, provides a viewing opportunity, and has relevance to the landscape being assessed. The location should offer the best or most direct view of the alteration.
- ii. determine the percent alteration on a perspective view
- iii. describe how the visual design is consistent with the strategies and guidelines described in the *Visual Impact Assessment Guidebook (FRPA, May 2022)* for those areas designated to be in a VQO of Preservation (P), Retention (R), Partial Retention (PR), or Modification (M). *FPPR 1.1* states the definition of "altered forest landscape" for each of the VQO categories, according to the extent of alteration resulting from the size, shape and location of cutblocks and roads
- iv. evaluate the visual alteration of the planned forest development on the affected landscape to ensure the planned development is consistent with the designated VQO of the specific landform.
- v. the resultant VIA will be formally reviewed by CCC and the QRP completing the VIA prior to finalizing the visual design and prior to Cutting Permit submission.
- vi. the VIA will assess proposed operations in a landform using two independent measures for each viewpoint:
 - category of alteration based on ocular assessment (using VQO description defined in FPPR Section 1.1
 - category of alteration predicted by numerical and visual design assessment

CCC will use the following design techniques to mitigate the visual impact on the landscape:

- i. use the existing major terrain features to design boundaries
- ii. design the shape of the block to resemble the natural character of the landscape
- iii. incorporate edge treatments into the design of the cutblocks (ie feathered edges, irregular cutblock design)
- iv. retain stand structure within the block boundaries (ie islands, patches of trees) to mitigate the visual impact
- v. plant the blocks as soon as possible following completion of harvesting operations
- vi. harvesting/road construction activities will be viewed from designated viewpoints during the operations to monitor the PFA activities to ensure the resultant landscape, from the harvesting/road construction disturbance, is consistent with the prescribed/designated VQO.
- vii. to mitigate visual impacts from PFAs, CCC will reseed exposed mineral soil, resulting from a PFA, in the first available fall or spring within 12 months following the soil disturbance, plan planting of cutblocks as soon after harvesting as possible, rehab/re-contour temporary roads when the temp roads are no longer required and dispose of slash piles as soon after harvesting as weather allows.

Incorporating Visual Design to meet the Visual Quality Objectives:

The following is an excerpt from Garth Wiggill's, Selkirk Forest District, District Manager (at the time of the determination) *Visual GAR Determination Rationale, KLFD, March 7, 2014, District Manager:*
...I am convinced that through a combination of excellent visual design ... a very thoughtful and effective visual design (can be) incorporated(into the plan) which ultimately successfully address(es) the visual quality objective.....within a very visually sensitive corridor ... incorporating innovative visual design techniques (can be used) to deal with the challenges of developments within visually sensitive areas....
... The FREP Extension Note #32 states that, 'one of the most effective tools available for managing visual quality is the application of visual design principles.' I wish to reiterate to the forest licensees that the good design is paramount to good visual landscape management. Furthermore percent alteration is not the only tool available to measure the efficacy of visual management. I am strongly encouraging all forest licensees to rely more carefully in sound visual design principle to measure the efficacy of visual management.

CCC will consider incorporating *Visual Design* to meet the designated VQO when developing a Cutting Permit in an area designated as *Known Scenic Area*.

3.6.2 VQO Exemption

The *FPPR Section 25.1* provides for flexibility when writing results and strategies in a FSP and is available where there are competing objectives or local conditions.

Where CCC completes a VIA that indicates that the extent of the alteration resulting from size, shape and location of the cutblocks and roads, &/or lack of tree retention within the cutblocks will not be consistent with the designated *Visual Quality Objective*, CCC will apply to the District Manager for a FSP amendment to allow the Primary Forest Activity to continue. The VQO Exemption request will also be referred to First Nations Bands/Nations that may be impacted by the VQO amendment.

A VQO exemption may be required when the forest development objective is to:

- (i) salvage timber that is determined to be a forest health concern
- (ii) salvage fire damaged timber
- (iii) salvage windthrown timber
- (iv) developing a *Fire Management Plan/Wildfire Risk Reduction Plan*

Practice:

CCC will submit a *FSP Amendment* that is consistent with the Selkirk Resource Region District Manager's October 22, 2021 guidance letter regarding visual management.

3.7 Cultural Heritage Resources

Objective set by Government for Cultural Heritage (FPPR 10)

The objective set by government for cultural heritage resources is to conserve, or, if necessary, protect cultural heritage resources that are

- a) the focus of a traditional use by an aboriginal people that is of continuing importance to that people, and
- b) not regulated under the Heritage Conservation Act.

Cultural Heritage Resources: Strategy/Practice – to be applied in all FDUs:

When an area is identified as being suitable for potential Cutting Permit development, CCC references the *Consultative Areas Database (CAD)*, a government database that identifies First Nations Bands/Nations that have traditional areas over the potential area of development. CAD provides contact information of the First Nations (FN) with traditional interests in these areas. CCC sends a *First Nations Referral Package* to the First Nations Bands &/or Nations identified in the CAD search to share information about the proposed forest development and to propose engagement with the interested Bands/Nations to discuss and share information about specific Aboriginal Interests and *Cultural Heritage Resources (CHR)* that may be impacted by CCC's proposed development.

Practice:

CCC will engage with the First Nations Bands, to the extent the Bands wish to engage, to identify:

- the relative value or importance of a particular CHR to traditional use by an aboriginal people
- the relative abundance or scarcity of a CHR that is the focus of a traditional use by an aboriginal people
- the historical extent of a traditional use by an aboriginal people of a CHR
- CCC will document the CHRs in the block/CP Site Plans

CCC will assess the impact to the available timber harvest landbase that would be required to be set aside as timber reserves to conserve and protect the CHR that is the focus of a traditional use by and aboriginal people. CCC will consider options for mitigating the impact that a forest practice might have on a cultural heritage resource that is the focus of a traditional use by an aboriginal people.

The *First Nations Referral Package* includes:

1. a referral letter describing the planned development: physical location of the planned development, proposed size of the CP (number/total area of the proposed cutblocks), proposed volume being developed, the location of the proposed roads and KML and Shape Files of the Cutting Permit.
2. a Key Map showing the general location of the proposed development and a Cutting Permit Map showing the design & size of the proposed cutblocks & road locations
3. the date comments must be received by CCC to be considered will be stated in the referral letter. The referral/comment period will be a *minimum* of 60 days and the comments from FN must be written comments &/or a commitment to meet/field trip and must identify the aboriginal interests that may be impacted by the proposed development.
4. CCC will continue with FN engagement until an agreed upon resolution that the proposed development is consistent with FN interests. When the FN and CCC cannot reach an agreeable resolution, CCC will refer the unresolved issues to Government.
5. CCC will keep information received from First Nations regarding cultural heritage resources

confidential unless the First Nations state this information can be released.

6. If CCC infringes into an OGMA (harvesting &/or road building), CCC will info share all OGMA incursions by blocks/roads greater than one hectare with applicable First Nations in conjunction with process identified in the Cultural Heritage section of the FSP.

Archaeological Assessment:

When CCC has identified potential cutblocks & roads (shapes & locations) that will comprise the proposed cutting permit development, CCC will reference the *Kootenay Lake Ministry Archaeological Overview Assessment (AOA) Coverage*, dated 2006. The AOA Coverage identifies AOA polygons that have a moderate/high archaeological potential. Where AOA polygons are within 100-meters of a planned cutblock or road location, an *Archaeological Impact Assessment (AIA)* will be completed by a qualified professional, and the QRP’s recommendations will be incorporated into the CP development.

CCC will inform all staff and contractors, prior to the start of any new primary forest activity that archaeological remains located on private or public lands predating AD 1846, or sites containing rock art or human burials, are automatically protected within British Columbia from disturbance, intentional and inadvertent by the *Heritage Conservation Act*. Subsequently, contractors and staff will be informed that if archeological materials are discovered in the PFA:

- all ground disturbance in the immediate vicinity of the suspected find(s) must stop immediately
- a qualified professional will be contacted and the find(s) will be field reviewed
- all practicable measures will be taken to preserve the find(s), as per the professional’s recommendations
- other relevant First Nations communities will be informed regarding the particulars of the unanticipated find(s)

CCC respects First Nation’s Aboriginal Interests equally, and will work towards fostering productive long-term relationships.

4.0 Additional FSP Information

4.1 Invasive Plants

For the purpose of section 47 [invasive plants] of the Act, a person who prepares a Forest Stewardship Plan must specify measures in the Plan to prevent the introduction or spread of species of plants that are invasive plants under the Invasive Plants Regulation, if the introduction or spread is likely to be the result of the person’s forest practices. (FPPR 17)

Invasive Plants: Strategy/Practice – to be applied to all FDUs:

CCC commits to implementing measures to prevent the introduction or spread of invasive plants that may result from CCC’s forestry practices:

Practice:

At the Site Plan stage of a Cutting Permit &/or Road Permit development, CCC will refer to the MFLNRO *Invasive Alien Plant Program (IAPP)*: (www.for.gov.bc.ca/hra/plants/application/htm) database to identify the locations of known invasive plant infestations. The results of the IAPP survey will be documented in the Site Plan(s). Where invasive plant infestations are found to be located within or adjacent to the areas proposed for development, site specific measures to minimize the establishment &/or spread of invasive plants will be incorporated into the Site Plans. Site specific measures will include, but are not limited to, timing of grass seeding soil disturbance due to primary forest activities.

Additional practices to minimize the establishment &/or spread of invasive plants: based on the results

of the IAPP survey, where there are known infestations in the area of planned development, forest development contractors and CCC staff and CCC PFA supervisors will be given the *BEST PRACTICES FOR PREVENTING THE SPREAD OF INVASIVE PLANTS DURING FOREST MANAGEMENT ACTIVITIES – A POCKET GUIDE FOR BRITISH COLUMBIA’S FOREST WORKERS* (<https://www.for.gov.bc.ca/hra/Plants/publications/Forestry-BP-09-11-2013-WEB.pdf>). CCC will ensure the following best management practices will be implemented when working in areas where the spread of invasive plants is likely:

- avoid infested sites where practicable. Otherwise, work in uninfested sites first, then move to the infested sites (determined by reviewing the IAPP)
- clean equipment before moving from a work site with existing infestations to a new work site (determined & monitored during CCC’s final site inspection by CCC’s logging/road building QRP supervisor)
- minimize soil disturbance during PFAs (soil disturbance limits are stated in the Site Plan(s))
- reseed exposed mineral soil, resulting from a PFA in the first fall or spring within 12 months following the soil disturbance. Plan planting of cutblocks as soon after harvesting as possible
- during primary forest activities minimize soil disturbance by:
 - harvest on a snow pack, when feasible
 - random skid to designated skid trails to minimize skidder traffic on the ground
 - utilize benches for skid trails to minimize side cuts
 - utilize brush to construct skid trails to reduce contact with the ground
- use overhead cable harvesting systems on steep ground

Grass Seeding:

- where grass seeding is undertaken, CCC will use certified grass seed (Canada common #1 or better grade) from a reputable supplier to ensure premium quality free of invasive plant seed, or a seed mix recommended by a MFLRNO range specialist
- germination success will be reviewed the season following the seeding to ensure that the grasses are growing in a minimum of 30% of the area seeded. The area will be reseeded that season, at the most practicable time for seeding, if grasses are not growing in 30% of the originally seeded area.
- in-block invasive plant infestations will be recorded in the Site Plan(s) and will be monitored and reported-on during post harvest and silviculture surveys. The personnel conducting post-harvest/silviculture surveys will be required to identify and report new invasive plant infestations identified during the surveys

Training:

- Annual invasive plant training will be provided to all staff responsible for cutting permit and road permit development, harvesting & road construction supervisors and contractors (especially forest development contractors). The training will include invasive plant identification, awareness of the location of known infestations currently in the IAPP database, reporting requirements and best management practices, as per the *BEST PRACTICES FOR PREVENTING THE SPREAD OF INVASIVE PLANTS DURING FOREST MANAGEMENT ACTIVITIES – A POCKET GUIDE FOR BRITISH COLUMBIA’S FOREST WORKERS* (<https://www.for.gov.bc.ca/hra/Plants/publications/Forestry-BP-09-11-2013-WEB.pdf>). The development contractors and staff, who participated in the Invasive Plant Training, will use their training in the field to identify invasive plants.

Reporting:

- all staff and contractors will report new invasive plant infestations they identify during the development work within 60 days of discovering the invasive plant. The occurrence will be reported via the *Report-A-Weed* app: www.gov.bc.ca/invasive-species .

4.2 Natural Range Barriers

A person who prepares a FSP must specify measures to mitigate the effect of removing or rendering ineffective natural range barriers (FPPR 18)

Measure
There is no range tenure located in the FDU's covered by this FSP; therefore there are no strategies/measures required to mitigate the effect of removing or rendering ineffective natural range barriers. If a range tenure is awarded in a FDU covered in this FSP, the FSP will be amended at that time to develop appropriate results, strategies and measures.

4.3 Recreation

Under FRPA grandparenting provisions in Sections 180 and 181, Interpretative Forest Sites, Recreation Sites, Recreation Trails and any objectives that were in effect immediately before the effective date, are continued under FRPA

Element	Strategy	Location
Interpretive Forest Site, Recreation Site, or Recreation Trail	When planning forest development, CCC will perform a <i>Crown Land Status Check</i> to identify any recreation sites that may be impacted by the development.	The strategy will apply to FDU's developed in areas that contain an Interpretive Forest Site, a Recreation Site, or a Recreation Trail

When development is planned around *Interpretative Forest Sites, Recreation Sites and Recreation Trails*, CCC will refer planned CP/RP development to the *Ministry of Forests – Kootenay Boundary Recreation Officer* where the planned development is in an area identified to have an *Interpretive Forest Site, Recreation Site, or Recreation Trail*. CCC will refer the planned development to the *Recreation Officer* a minimum of 30 days prior to CP/RP submission for approval. As required under *Section 16* of the *FRPA Forest Recreation Regulation*, CCC will request a *Sec 16 Exemption* that would allow CCC to proceed with CP development, and subsequent PFA in the area identified as having an identified Recreation Site. CCC will not proceed with PFA until a *Sec 16 Exemption* has been issued. The subsequent PFA will be consistent with the conditions stated in the *Sec 16 Exemption*.

Practice: to minimize negative impacts to designated Recreation Sites:

- identify the specific established objectives of recreation sites &/or trails that may be impacted by the planned development and ensure the PFA meets the objectives. The objectives will be identified by reviewing the *Crown Land Status Check* or through discussion with the local Recreation Officer
- trails/sites will be identified in the Site Plan &/or Supporting Document specific to a cutblock &/or road construction activity that can potentially be impacted by the Primary Forest Activity informing the contractors of the location(s) of the recreation sites
- CCC will notify applicable, identified recreation clubs regarding CCC's plans and schedules to operate around their identified recreation site &/or trail
- any direct impact (where a PFA directly infringes into an access road, site or trail) to access roads, sites or trails will be fully deactivated to restore to the original state as much as possible, including rehabbing damage to trails during harvesting operations (ie cleaning trails of logging debris concurrently with completion of harvesting operations). The rehab will be completed as soon as practicable following completion of harvesting operations (snow free conditions, dry conditions)
- where practicable, PFAs will be scheduled to occur during low usage periods.

- to the extent practicable, CCC will attempt to maintain the visual experience of the recreation site/trail during & after the PFA
- CCC will contact & engage (discuss plans, harvesting schedules) with applicable recreation clubs and agreement holders to promote safety of users during industrial activity
- Signage will be erected around recreation sites and trails during times of harvesting operations
- CCC commits to only build new roads or trails in recreational areas where no other practicable location is available

The following table lists the designated Recreation Areas, Recreation Sites and Recreation Trails that are covered by this FSP at the time of the FSP submission:

Recreation Areas within CCC FDU			
FDU	LU	Name	Project No.
Laird Creek / Queens / Redfish	K10	Redfish Recreation Area	REC203935
Laird Creek / Queens / Redfish	K10	Noakes-Haiseldean Lakes	REC2383
Coffee / Fletcher	K12	Fletcher Lake	REC2109
Coffee / Fletcher	K12	Woodbury Creek	REC2112
Coffee / Fletcher	K12	Fletcher Creek Falls	REC2426
Coffee / Fletcher	K12	Cody Point	REC230283
Coffee / Fletcher	K12	Krao Cabin	REC265716
Coffee / Fletcher	K12	Krao Area	REC265718
Hamill Creek	K16	Lavina Lookout	REC204276
Greyhorse Ridge	K17	Cooper Creek	REC2117
Greyhorse Ridge	K17	Howser	REC2116
Lake Creek	K18	Logus Lake	REC2284
Lake Creek	K18	Morgan Lake	REC2380
Howser Creek	K21	Howser Creek Canyon	REC2386
Howser Creek	K21	Lake Hanging Glacier Trail	REC2468
Howser Creek	K21	Crystal Basin Site	REC6367
Howser Creek	K21	Clancy Creek	REC6715
Duncan River	K22	Duncan River	REC2268
Duncan River	K22	Coot Lake	REC5770

Recreation Trails within CCC FDU			
FDU	LU	Name	Project No.
Laird / Queens / Redfish	K10	Redfish Snowmobile	REC266279
Coffee / Fletcher	K12	Cedar Creek Trail	REC6712
Coffee / Fletcher	K12	Fletcher Lake	REC204659
Coffee / Fletcher	K12	Nelles Creek Trail-where	REC2265
Coffee / Fletcher	K12	Krao	REC265720
Coffee / Fletcher	K12	Cedar Creek Trail	REC6712
Argenta/Johnsons Landing	K16	Earl Grey Pass Trail	REC2219
Argenta/Johnsons Landing	K16	Salisbury Hiking Trail	REC240814
Hamill Creek	K16	Lavina Lookout Trail	REC201278
Greyhorse Ridge	K17	Cascade Creek Trail	REC2270
Healy Creek / Trout Lake	K18	Silver Cup Ridge Trail	REC6741
Howser Creek	K21	Dunn Creek Trail	REC5042
Howser Creek	K21	Cockle Creek Trail	REC5043
Upper Duncan	K22	Hall Creek–Coot Lake Trail	REC2334
Howser Creek	K21	Bugaboo Pass Trail	REC231183
Upper Duncan	K24	Silent Pass Trail	REC5344

Recreation Sites within CCC FDU			
FDU	LU	Name	Project No.
Laird / Queens / Redfish	K10	Noakes-Haiseldean Lakes	REC2383
Coffee / Fletcher	K12	Fletcher Creek Falls	REC2426
Coffee / Fletcher	K12	Fletcher Lake	REC2109
Coffee / Fletcher	K12	Krao Cabin	REC265716
Duncan River	K16	Lavina Lookout	REC204276
Greyhorse Ridge	K17	Howser	REC2116
Lake Creek	K18	Logus Lake	REC2284
Howser Creek	K21	Howser Creek Canyon	REC2386
Duncan River	K22	Coot Lake	REC5770

Recreation Trails & Areas with Objectives:		
Name	Type	Legal Objective
Cockle Creek	Trail	98/03/31 – to manage the Cockle Creek recreation trail for a forested, semi-private non-motorized recreation experience. The trail will be maintained and adjacent vegetation conserved. Opportunities for hiking, fishing and primitive camping are available. No mechanized use permitted.
Fletcher Lake	Trail	98/03/01 – to manage the Fletcher Lake recreation trail for a forested, semi-private non-motorized recreation experience. The trail will be maintained and adjacent vegetation conserved. Opportunities for hiking, fishing and primitive camping are available. No mechanized use permitted.
Glacier Creek	Rec Area	98/03/31 – to manage the Glacier Creek recreation site for a lakeside, roaded recreational experience. The Lake shoreline and natural vegetation will be conserved. Opportunities for primitive camping will be available at the site.
Twin Bays Site	Rec Area	98/03/31 – to manage the Twin Bays recreation site for a lakeside, roaded recreational experience. The campsite will be maintained; the lake shoreline and natural vegetation will be conserved. Opportunities for camping, picnicking, car top boat launching and swimming will be available at the site.
Ross-Whitelady Lake	Rec Area	98/03/31 - to manage the Ross-Whitelady Lake recreation site for a lakeside, semi-private non-motorized recreation experience. The campsite and trail will be maintained; the lake shoreline and natural vegetation will be conserved. Opportunities for camping, picnicking and swimming will be available at the site. Access is by non-motorized trail.
Noakes-Hazeldean Lake	Rec Area	98/03/31 – in the summer & winter, to manage the Noakes-Hazeldean Lake recreation site for a subalpine, lakeside, semi-primitive non-motorized recreation experience. The lake shoreline and natural vegetation will be conserved. In the summer, opportunities for primitive camping and hiking will be available at the site. In the winter, ski touring and snowmobiling will be available.

4.4 Karst Features

Practice: CCC will refer to the following procedure to identify the possible occurrence of Karst features during the initial stages of the development:

British Columbia's Karst Inventory System: The integration of karst management with forest development relies on an inventory process that accurately identifies areas of karst terrain, and assesses the inherent vulnerability of the karst system in those areas. A set of standards and procedures for completing karst inventories and vulnerability assessments are described in *Karst Inventory Standards and Vulnerability Assessment Procedures for British Columbia (RISC 2003)*.

A planning-level inventory could be triggered under the following circumstances:

- reconnaissance-level karst potential maps indicate that an area of proposed development may be underlain by karst;
- there is previous knowledge of karst in or around an area of proposed development; or
- karst features have been identified on the ground in or around an area of proposed development.
- where it is determined, as per above, a Karst assessment is required, an individual qualified in Karst assessments &/or a QRP qualified in Karst assessments, will complete the Karst assessment. CCC will implement the recommendations stated in the Karst assessment report into the proposed forest development

Significant Surface Karst Features Management Objectives

- CCC staff will refer to the Ministry of Forests *Karst Management Handbook for British Columbia* as a guide to determine the Karst Management Objectives that will be implemented in the forest development and the subsequent primary forest activities
- To protect significant surface karst features from physical damage.
- To maintain any site-specific microclimatic conditions and/or habitat/biodiversity characteristics associated with significant surface karst features.
- In the case of sinkholes, to prevent soil erosion and sediment transfer into subsurface openings or caves.

The following best management practices are recommended:

- A minimum one-tree-length reserve (based on the average height of the dominant and co-dominant trees) extending outward from the edge of the feature. For depression features, such as sinkholes, the edge of the feature should be considered the rim of the sinkhole, as defined by the upper break of the slope enclosing the sinkhole.
- An adjacent management zone of an appropriate size to protect the reserve from windthrow (i.e. feathered edge)
- In cases where surface karst features have high recreation values, the reserve shape/size may need to be adjusted to manage for visual quality.
- Sinkholes large enough to create their own microclimate (i.e., support distinct vegetation with an obvious species gradient down the sideslope, or exhibit a distinctive temperature and relative humidity gradient), should be managed with a reserve of two tree lengths to maintain interior microclimatic conditions.
- Net the Karst feature out of the proposed development.

4.5 Special Tree Protection

Special Tree Protection Regulation Objective: A responsible person for a primary forest activity must ensure that, in the course of carrying out that activity, specified trees are not cut, damaged or destroyed, and supporting trees are not felled, topped or destroyed.

Practice:

When the CCC becomes aware of a specified tree in an area in which they are responsible for primary forest activity CCC will submit a report about the tree to the Minister within 30-days after CCC becomes aware of the tree. CCC will ensure that, in the course of carrying out primary forest activity, specified trees are not cut, damaged or destroyed, and supporting trees are not felled, topped or destroyed unless authorized by the minister to cut, damage or destroy Crown timber.

4.6 Stocking Standards

As per FRPA Sec 29(2), CCC will establish a free growing stand on those areas that have been harvested that are in the net area to be reforested that are under the FSP. To achieve free growing stands, CCC will utilize the *Selkirk Resource District, South Columbia – default Stocking Standards, Version 1.0, April 2018*, on all cutblocks requiring reforestation within this FSP. These standards may be amended from time to time by the Chief Forester or the Selkirk Resource District and any amended standards will immediately be incorporated into this FSP.

To meet the requirements of FPPR Sec 16(1) (whether free growing is assessed on a block basis or collectively across blocks), CCC specifies that FPPR Sec 44(1), free growing stands generally (assessed on a block basis), applies in all situations and circumstances under this FSP.

As per FPPR Sec 16(3), where CCC is required to establish a free growing stand:

- i. the applicable stocking standards and applicable regeneration date referred to in FPPF Sec 44(1)(a), and
- ii. the applicable stocking standards and free growing height referred to in FPPR Sec(44)(b), will be applied.

4.6.1 Wildland Urban Interface Default Stocking Standards

In February 2019, the Selkirk Resource District, District Manager approved the *Default Wildland Urban Interface (WUI) Stocking Standards* for the Selkirk Forest District. As a package they are labeled, [WUIStockingStandardsDSEFinalV1.0](#). The stocking standards are designed to achieve fire management objectives as identified in a *Fire Management Plan*. The stocking standards are available for application within the *2-km WUI Zone*. The stocking standards can also potentially be applied within a landscape level fuel break area as designated in a landscape-level fire management plan.

It is not mandatory to use the WUI Stocking in all areas where the WUI Stocking Standards are applicable. CCC's Silviculture QRP will determine in which situation to utilize the *Kootenay Lake Forest District Stocking Standard Guidelines* or the *Default Wildland Urban Interface Stocking Standards* in areas where the WUI Stocking Standards may be used.

The stocking standards that will be applied are in Appendix I. Where a Professional Forester deems it more practicable to use alternative stocking standards, an amendment to the FSP will be submitted requesting acceptance of this standard - District standards can be amended from time to time as required and determined by a QRP.

4.7 Cumulative Effect of Multiple FSP's

To ensure the biodiversity targets are continually being met, the FSP must address the cumulative effect of multiple FSP's within an area (*FPPR Sec 19*). CCC will utilize the *HLPO (Higher Level Plan Order) Reporting Suite (Suite)* to analyze the amount of Old & Mature Forest in a Landscape Unit in which CCC is planning to develop a cutting permit.

The *HLPO Reporting Suite* is an application maintained by the *Selkirk Geospatial Research Centre* that allows members (Licensees) to produce reports reflecting the rules and objectives in the KBHLPO for *Old Forest, Old+Mature Forest, Connectivity* and *Ungulate Winter Range* requirements. The *Suite* tracks and documents the development of all Licensees forest operations in each LU; subsequently, the *Suite* shows cumulative effects on *Old Forest, Old + Mature, Connectivity* and *Ungulate Winter Range* targets. (See *3.53 KBHLP – Objective 2: Old & Mature Forests* for more detail on the *HLPO Reporting Suite*)

To address other resources (i.e. Visual Quality Objectives, Watershed Equivalent Clearcut Area calculations, cutblock patchsize regulations) CCC will notify other Licensees where CCC has planned development in areas with overlapping LUs with other Licensees. The intent of the communication is to proactively address and resolve landscape unit level issues prior to CP application. Landscape level issues include:

- meeting/maintaining biodiversity – Old and Mature + Old targets, Connectivity, Ungulate Winter Range. See *3.5.3 KBHLP – Objective 2: Old & Mature Forests* for more detail on CCC's Practices to manage for meeting Biodiversity targets and *3.3.2 Ungulate Winter Range* Ungulate Winter Range targets.
- managing watershed management – Community Watershed Equivalent Clearcut Area calculations and share Hydrological Assessment. Share QRP assessments & recommendations
- share development plans so that plans may augment each Licensees' plans (ie shared road access to minimize road densities)
- share VIA reports/issues
- meeting landscape level patchsize requirements/limits (maximum 40-ha for the Interior)
- maintain established connectivity corridors

Records of biodiversity and ungulate winter range targets are maintained in the *HLPO Reporting Suite*. Watershed management ECAs, Visual Quality Objectives and cutblock patch size analysis will be kept on record on CCC's Woodlands Server.

A QRP will document the sharing of information with the other affected Licensee(s) which will be maintained in CCC's development record keeping forestry office. CCC will share their landscape unit level information upon request from other Licensees sharing CCC's Landscape Units.

If the Licensees in a shared FDU or LU cannot reach an agreement for sharing the responsibility to obtain results consistent with objectives set by government, then CCC will request the Minister to act under Section 9 of the Forest and Range Practices Act.

4.8 Public Information Sharing

Due to lack of Cooper Creek Cedar forest development staff and contractors qualified to develop long-term *Standing Timber Inventory (STI)*, CCC does not have the ability to produce an annual map showing development plans for the following year(s) with reliable information to share with First Nations and the public. Subsequently, cutting permits that are developed during the forest development season are generally harvested within two years of CP/RP issuance by Government.

In lieu of producing an annual “*Forest Development Map*”, CCC continually updates the company’s website with CP/RP information once the cutting permit has been developed to the stage that reliable information of the development can be shared with First Nations and the general public. CCC’s website is: <https://coopercreekcedar.com/>

As the FSP does not provide information regarding site specific stand level development, individuals or interest groups that may be affected by CCC’s forest development of a Cutting Permit &/or a Road Permit can request information specific to this development. CCC will respond to these specific requests by providing maps showing the proposed cutblocks and road locations and shapes of the blocks and the roads. The interest group(s) will be given an opportunity to make comment on the development prior to cutting permit application. The interested parties will be given a minimum of 30 days from the time they were given the maps, to submit written comments. CCC will respond to the request for information from the Stakeholder within 15 days of receiving their comments to discuss their concerns regarding the specific proposed forest development.

CCC will encourage the residents of watersheds and community face units in which CCC has planned forest development to form a local community planning group &/or a formal information sharing framework (ie website, email communication) to liaise with CCC during all phases of the forest development. CCC will encourage the formation of the working group or information sharing network early in the process of CP &/or RP development. However; CCC cannot force the community to become engaged. The objective of the information sharing process is to interact with the residents throughout the development process so all parties are concurrently updated on the forest development.